

WATCHING FORDS GROW IS A FASCINATING PASTIME

In the Great Long Island City Plant They Turn Out One Hundred and Sixty-five Cars Every Eight Hours.

By BURTON S. BROWN.

Over a million Ford owners in this country would be even prouder of their cars than they are now if they could see how they are built in Detroit and assembled at the various big distributing plants.

But one does not have to go to Detroit for thrills because there is a treat for Ford owners and anybody for that matter right over in Long Island City, where the Ford company has a mammoth assembling and distributing plant for this section. Gaston Plantiff is in charge of an organization over there which is

vigor. It has taken just thirty-four minutes to put these machines together with nothing but bare frames as a beginning. The other units were added during the cars' brief trip of 120 feet past the alert and expert men who are paid well to do their work well. Here is a plant that turns out 145 cars ready for immediate operation each working day of eight hours. Since August 1, 1916, it has assembled and shipped 30,000 cars. For the year ending August 1, 1917, it plans to assemble and ship 50,000 cars.

Even a person knowing little about machinery is hypnotized and gets before him from seeing the car grow before his eyes. He doesn't want to leave the place. He wants to see "just one more come through." Surely if he waits long enough there will be something in the great number of units handled that will not fit, and then the whole system will stop the conveyor which carries the cars along from one eager pair of hands to another. The magic spell will be broken.

But nothing like that ever happens. The parts always fit. Inspectors know they will fit before they permit them to reach the assembly line. The men take the parts from great piles all over the place—rear axles, bodies, wheels, tops, bow doors, fenders, fans, commutators, pull rods, starting cranks and grease cups—they all fit and go into place with a snap and an accuracy which shows how perfectly they have been made. Time and the Long Island conveyor and F. Dunsell, the general superintendent, wait for no man. The worker must be there with his particular part and must have

it, or, as shipped in bulk and arriving in a steady stream at the huge loading and unloading platform, where twenty-five freight cars are handled at one time inside the building. The mighty steel muscles of a five-ton crane easily lift the various parts to the floors where they belong. There are eight floors in the Long Island plant, which is located on a plot 400 feet by 192 feet by 100 feet.

The main assembly room is on the second floor and the minor assembly operations are confined to the upper floors, the axle, spring and tire assembly and the wheel painting department being on the third floor, and the other departments distributed through the other floors. These include the engine department, fenders and the flow painting department for bodies, the machine shop, top assembly and varnishing departments, the trim and upholstery departments and the body assembly department.

All the parts that go into the car are piled on the various floors where they are easily accessible and facilitate progressive development of the car. The minor assembly operations are carried on with the same precision and speed which mark the final clamping together of the machine on the main assembly floor. It is not necessary to go into all the operations here, but some of them, being of particular interest, will be mentioned. For instance, the tire problem looks like a big one—the job of getting the tires on the wheels, 480 of them every day. Only two men do this work, each accounting for 330 tires in eight hours. They are powerful fellows, who handle the tires with such remarkable skill that they can put one on the wheel, fill it with air and put it on the pile in twenty seconds. Many a visitor sighs and says, "Oh, if I only could have one of those fellows with me when a tire goes bad!"

The painting of the wheels, bodies and fenders is another remarkable operation. The wheels and fenders are dipped into great vats of paint. The men paint about 2,000 fenders in eight hours, the large number being made possible by the demands of the service department. After the fenders have been dipped into their paint bath they are hung in a huge moving crane—102 of them at a time—where the excess paint is allowed

flows down over the body in a fine, even layer, any excess going into drip pans under the frames supporting the body. The motors arrive—100 to a carload—without crank handle, crank, ratchet, commutator, or spark plugs. These parts are specially attached, and the motor is given a block test before going into the chassis. It is thoroughly oiled also on its way across the room.

Now, we have arrived at the conveyor, stacked in one end of the room are hundreds of frames. An able-bodied citizen keeps attacking this pile vigorously. He swings a frame to his shoulders and literally feeds it to a great machine which with one stroke drives the running board brackets in place. Then the frame is quickly transferred to the conveyor, where men attach first the front spring and front axle and then the rear axle assembly. Here is where one sees the real action begin. As the conveyor slowly carries the frame along it is attacked from all directions by men handling the various parts that will finally make the thing a real automobile.

In a twinkling a travelling crane drops the motor into place while a group of men speedily attach the gasoline tank already filled with "gas," the exhaust pipe and muffler and the steering and dash assembly. As the conveyor moves along steadily, thermostat and shell, the fenders and running boards are fastened into place. There are no "batter fingers" here. Then along comes another travelling crane, which drops the body in place.

By this time the car looks ready for business, but the operations have been so swift one is hardly sure that a car has been fully developed ready for operation. Any doubts one may have quickly vanish, however, when a man attaches a long hose to the radiator opening so that car may get its water supply while still moving toward completion. Then, suddenly, another man leaps into the rolls from the floor and into another room under its own power, where it undergoes a one-hour's running test. After leaving this room it is ready for delivery to the local dealer or to the loading platform for shipment. At this point one

TWO VETERANS SELL HAYES WIRE WHEELS

Castle and Kyte Are Putting New Wheel on Map in Fine Style.

With Fred E. Castle and H. W. Kyte, two prominent automobile accessory men, as general sales agents the Hayes Wheel Company of Jackson, Mich., the largest wheel manufacturers in the world, have entered the wire wheel field.

The wire wheel possesses several special features. It is made in Jackson, Mich., where a plant devoted exclusively to the manufacture of these wheels and separate from the remainder of the Hayes factory and production organization has been erected. Messrs. Castle and Kyte, who have their headquarters at 872 Woodward avenue, control the entire marketing of this wire wheel. Mr. Castle is at present devoting himself to the sales end of the business, while Mr. Kyte, who formerly was manager of the Houk Manufacturing Company, is organizing the production force, in which work he has the assistance of C. B. Hayes, president, and Mark Merriman, vice-president of the company.

Both Mr. Castle and Mr. Kyte are well known to the trade. Mr. Castle has been connected with the automobile accessory business since the inception of the industry, and since the inception of the industry, Mr. Kyte is thoroughly familiar with the manufacture and selling of wire wheels and has also been in the automobile accessory business many years. Both men were interested in the bicycle business and graduated naturally into the automobile business when the industry began to boom.

The Hayes wire wheel is distinguished by several exclusive features. One of the most important is the flange in which hub shells are safeguarded against undue wear of drive studs when through carelessness hub caps are not securely tightened. Closed bosses have been provided, thereby eliminating any possibility of wear occurring even under the most adverse conditions. This also prevents rusting of the studs and rust staining of the wheel.

The Hayes Wheel Company is in a position to supply wire wheels, no matter how great the demand. Already orders are coming in from all over the country, Mr. Castle reports. Distributing stations are being established in this city, Boston, Chicago, Philadelphia, San Francisco, Denver, Detroit, Cleveland, Pittsburgh and other centers for the service users. The greater part of the work so far, however, has been devoted to supplying motor car companies.



FRED E. CASTLE.

Joins Agency.



T. S. Gamble, assistant sales manager of the Maxwell Motor Sales Corporation, has resigned to become a partner in the firm of Benson, Campbell & Slaton, advertising agents, with offices in Chicago and Cleveland. Mr. Gamble will make his headquarters at the Cleveland office and will handle the Eastern business of his firm. Mr. Gamble has had extensive experience in retail advertising and was for five years connected with the advertising department of the White Company, manufacturers of motor cars and trucks. In the capacity of assistant sales manager of the Maxwell Motor Sales Corporation he has had charge of Maxwell advertising.

TRUCK SALES ARE TRADE BAROMETER

Big Auto Car Order From Chicago Indicates Big Plans for the Year.

Preparations for a record breaking spring in point of business activity are seen in the heavy purchases of equipment and supplies by prominent concerns.

So far as bank clearings and railroad earnings reflect the state of trade there seems to be little probability of a let-up in the advancing tide of the country's prosperity for 1917 at least, and far-sighted buyers are busy laying plans to handle the situation.

With factories running to capacity in the steel business, in the dry goods trade, in the shoe and textile industries, it becomes a problem to meet transportation and delivery demands. The thought given to this is seen in the extensive investments now being made in motor trucks.

Morris & Co., the big Chicago packing house, telegraphed an order last week to the Autocar Company, Ardmore, Pa., for fifty more Autocars to be added to their present fleet. In speaking of the business outlook as reflected in the demand for trucks, H. M. Coale, sales manager of the Autocar Company, said:

"The Morris & Co. order is but a sample of the business forecast that seems to be planning for a big year. Our repeat orders never ran so heavy as they are now doing, and other truck manufacturers are having the same experience. Department stores, groceries, express companies and big manufacturing plants are rapidly adding to their delivery systems.

"The shortage in freight cars may have something to do with this demand for trucks, but the real reason is the practical certainty, as expressed to me by many buyers, of an unprecedented volume of goods to be moved over regular short delivery routes. The saving of time will be a tremendous factor in cutting down expense and the truck has firmly established its superiority over horse and wagon systems. Should predictions of the volume of trade be borne out the shortage in freight cars may be equalled or exceeded by the shortage in motor trucks.

ALL-SEASON BROUGHS.

Buick Company Has Some for Immediate Delivery.

The man who knows about the great utility of the brougham for all seasons but has hesitated to get one because he has feared he would have a long wait for delivery has reason without the Buick Motor Car Company at Broadway and Fifty-fifth street. Arthur Newton has some cars of extra fine finish ready for immediate delivery. His idea is that broughams are not only "winter cars" but cars for all year service and for country as well as city use.

Buick broughams are driven from Amesbury, Mass., to New York a distance of 321 miles, in one day and have proved in the hands of many owners that they are great cross-country models. They are cars suitable not only for today but for next summer. They have more style than the limousine.

The cars shown by the Buick company are beautifully balanced and have a remarkable "pick up and get away."

New Goodyear Mgr.



W. R. BLISS.

Walter R. Bliss, formerly Goodyear Tire and Rubber Company manager at the Boston branch, has just been advanced to the management of the New York district, succeeding J. W. Hobbs, who has been given special work. Mr. Hobbs's headquarters will continue to be in New York.

Mr. Bliss, or "Pop," as he is familiarly known throughout the organization, is a rubber man of wide experience and has been with the company for a long time. His connection with Goodyear began as a manager of the mechanical goods department, in which capacity he was serving when appointed manager at Boston. He is thoroughly familiar with the company's products and policies, and under his supervision the wants of the motorists of the New York district are certain to be well provided for at all times.

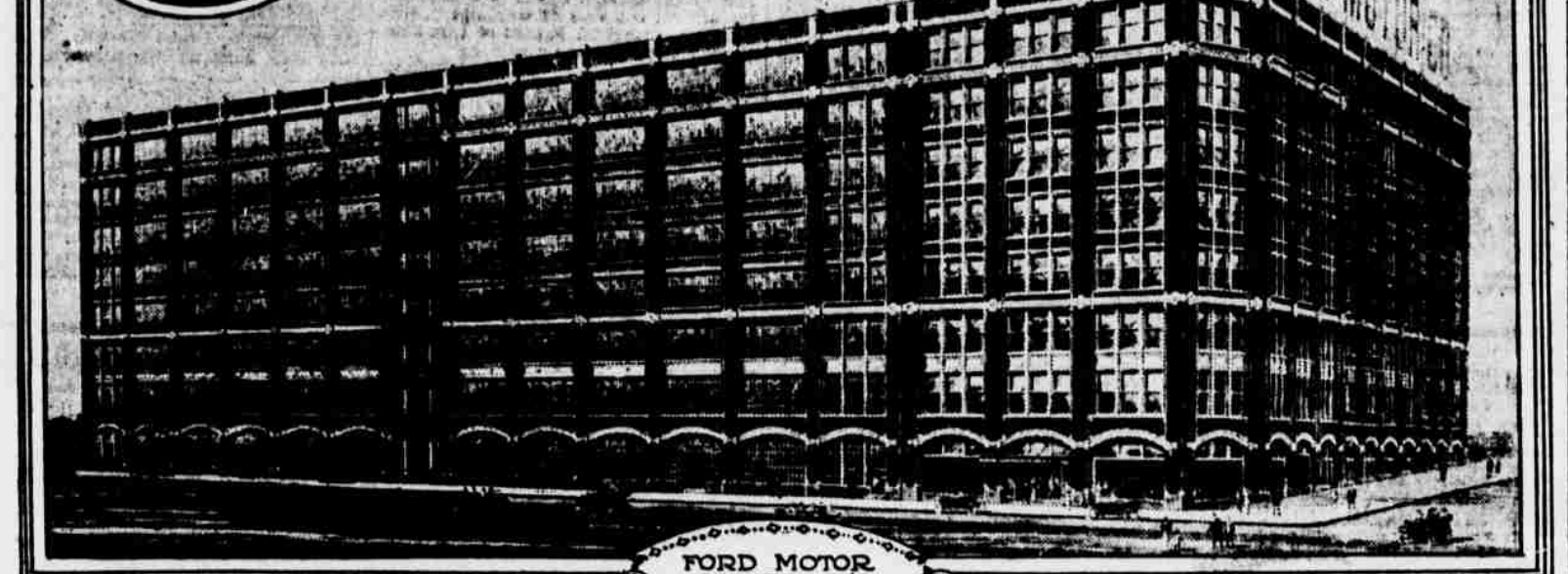
INTEREST IN NEW GRANTS.

Special Designs Developed by Randall Company Are Shown.

The unusual success with which the Randall Motors Corporation, metropolitan distributors for the Grant Six, have made in their special body department, which is in charge of Frederick L. Brano, has encouraged them to develop this particular line of work to its utmost. In this connection this concern is showing for the first time a Grant Six chummy roadster, which seats four people. The interior designing of this roadster was done by Mrs. Gerrit Smith, a well known interior decorator, who has worked out an unusual effect through the use of wide striped black and gray haircloth. The effect is very unique and is sure to create much favorable comment. In addition to this roadster Mr. Brano has designed a brougham in primrose and black with the interior completely done in gray silk whipcord. This car was designed especially for shopping purposes and is being displayed at the present time in the Majestic Hotel, corner of Seventy-second street and Central Park West.



GASTON PLANTIFF.



FORD MOTOR COMPANY'S GREAT LONG ISLAND FACTORY.

constantly on its toes and ever eager to make new records in turning out "the universal car."

The speed with which Ford cars are assembled in Long Island City for the local market and for export is amazing. Even more wonderful is the way they instantly "come to life" after they are assembled and leave the conveyor which has carried them through little groups of men, each man having his particular work to do. The cars roll away under their own power with lots of snap and

it in place, or he will be in the way of the next man anxious to do his bit toward making a regular automobile of the strange looking skeleton of a thing being juggled along by the powerful chain and cog contraption.

But let's go back to Detroit a moment and start a trainload of parts toward the big Long Island plant, where 750 men, day in and day out, put them together, so that an ever increasing number of persons may know the joys of motoring. These freight cars contain everything that goes into the automobiles—the frames, motors, axles, wheels, tires, fenders, etc., all shipped in bulk and arriving in a steady stream at the huge loading and unloading platform, where twenty-five freight cars are handled at one time inside the building. The mighty steel muscles of a five-ton crane easily lift the various parts to the floors where they belong. There are eight floors in the Long Island plant, which is located on a plot 400 feet by 192 feet by 100 feet.

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to drip off. The next operation is to push the cradle into a large oven, where the fenders are baked at a temperature which rises to 375 degrees. The actual operation of giving these fenders two coats of paint requires seventeen minutes. They are baked for about one hour.

Ben-Hur Manager.



J. M. SCHWERIN.

J. Mortimer Schwerin, formerly connected with Longenecker & Sanders, Inc., Eastern distributors for Abbott motor cars, has been appointed sales manager of the Ben-Hur New York Motor Car Company in charge of the sales of Ben-Hur cars in the Eastern and New England States.

Mr. Schwerin will shortly announce his sales organization and a new and original plan of service to Ben-Hur owners.

Mr. Schwerin's connections with the Abbott people date back to his beginning. Previous to that he was the Eastern manager for the Case Company for a period of five years.

FRED DAYTON IS PROMOTED.

Becomes General Sales Manager of Ajax Company.

Following the established policy of making advances from within the ranks of the organization, Chairman Horace De Lasser of the board of directors announces the appointment of Fred E. Dayton to be general sales manager and a director of the Ajax Rubber Company, Inc. This important promotion comes to Mr. Dayton following the retirement of J. C. Matlack, whose resignation was accepted by the directors at the annual meeting of the company on Tuesday.

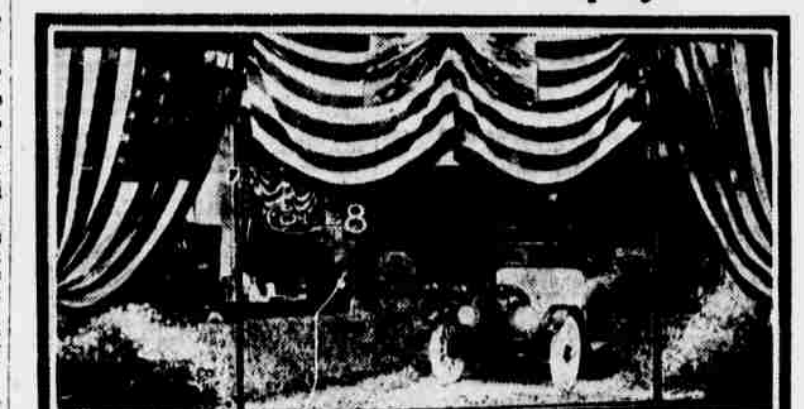
Mr. Dayton has been associated with Mr. De Lasser for seven years, and for



FRED DAYTON.

four years he has been assistant in charge of Ajax tire sales. Previously he was sales manager of the Columbia Motor Car Company of Hartford and branch manager in Boston and Chicago for the Electric Vehicle Company, being a pioneer in the motor car and allied industries.

Colt-Stratton's Novel Display.



Colt-Stratton Company have turned their Broadway window into a spring flower garden in their newest window display. A Cole & Co. toucan appears entering a gravel drive through a natural boxwood hedge, with grass and spring flowers on both sides.

The freshness and reality of the scene has attracted a great deal of attention to the Cole-Springfield toucan, which is a car as readily adaptable to the spring conditions shown inside the window as to the present winter conditions outside.

LOW PRICED CONVERTIBLE.

This Is the Popular Type, Says Grant Official.

The next big step in the automobile industry and one already being taken is not a question of mechanism but of body construction, according to George S. White, sales manager of the Grant Motor Car Corporation.

The advent of the convertible enclosed car at low cost is the most interesting development of the motor car business in 1916 and 1917," says Mr. White.

"The most interesting development of a low priced but high quality convertible sedan. The Grant concern was first in the field with a convertible sedan selling for a thousand dollars. Each top is tailored expressly to fit the particular car it adorns. In this way all looseness, rattling and squeaking over rough roads have been eliminated. The top fits the body perfectly and no one would ever suspect that it could be removed.

"Enclosed cars of this quality at prices like these have had a tremendous effect on the industry. People who never before have driven a winter car are buying this year and enjoying all the luxury and comfort that were formerly restricted to the owners of automobiles costing from \$2,000 to \$2,500."

BEARINGS SERVICE GROWS.

Five New Branches Will Be Established April 1.

Announcement has gone out from the general offices of the Bearings Service Company, Detroit, Mich., that on April 1 five new branches will be opened. These branches will be located at Philadelphia, Rochester, Indianapolis, Cleveland and Denver.

The development of this new company has been phenomenal. Beginning operations only last September, it has in the space of five short months established no less than eleven service branches, and by the 1st of April will have completed arrangements for increasing this number to sixteen. The cities in which branches are now in operation are as follows: New York, Chicago, Detroit, Boston, Atlanta, Minneapolis, San Francisco, Los Angeles, Seattle, Dallas and Kansas City. The last two cities were added early in December.

"Our business is going forward by leaps and bounds," said A. H. Heuner, general manager of the Bearings Service Company of Detroit. "When we opened our first branches last September we felt sure that the service we had set out to give to automobile dealers and car owners would meet with a warm appreciation, but I am frank to say that we hardly anticipated anything like the demand thus far evidenced. In fact, so urgent have been the calls made upon us from all parts of the country for this new type of specialized bearings service that we have been taxed to our capacity in establishing additional branches as rapidly as they have been demanded."

AMERICAN CAR PLANS.

Production Has Started and New Men Join Company.

Production has started in earnest at the Plainfield, N. J., plant of the American Motors Corporation. Director of Sales Marcus I. Brock announces the addition of some more experienced men to the force. W. H. Crowley, recently wholesale manager of the Buick Motor Company of New York, has been made a district sales manager and is on the road in New York and Pennsylvania with an American car. Louis Chen, vice president of the company, is also on the road.

Willys-Overland

Motor Cars

Car Value —What Makes It?

A most important factor in determining the value of the motor car you buy this spring is the stability of its manufacturer. Assets and good will create stability. So it is interesting to you, as an Overland owner or admirer to know that the assets of The Willys-Overland Company are more than \$68,000,000.00. Its good will can best be judged by the steadily increasing number of Willys-Overland purchasers. From 3304 cars in 1910 our annual business grew steadily to 142,441 cars in 1916. Our contracts call for more than 200,000 cars this year. It's well to consider such fixed facts before you purchase your car.

Light Four	Big Four	Light Six	Willys-Knight
Touring . . . \$865	Touring . . . \$850	Touring . . . \$985	Four Touring . \$1285
Roadster . . . \$850	Roadster . . . \$835	Roadster . . . \$970	Four Coupe . . \$1650
Country Club . \$750	Coupe . . . \$1250	Coupe . . . \$1385	Four Sedan . . \$1920
	Sedan . . . \$1450	Sedan . . . \$1585	Four Limousine \$1950
			Light Touring . \$1950

All prices f. o. b. Toledo and subject to change without notice

WILLYS-OVERLAND, INC.

Broadway and 50th St. New York City. At the Entrance to the 50th St. Subway

BROOKLYN BRANCH	YONKERS BRANCH	NEWARK BRANCH
140th St. & Courtland Ave. Tel. Melrose 130	37 South St. Tel. Yonkers 3587	33-7 Halsey St. Tel. Mulberry 2646
SERVICE STATION 150th St. & Gerard Ave. Tel. Melrose 9991	SERVICE STATION 71 South Broadway Tel. Yonkers 3587	SERVICE STATION 33-7 Halsey St. Tel. Mulberry 2646

Manufacturers of Willys-Knight and Overland Automobiles and Light Commercial Cars
"Made in U. S. A."